tertia) motus Apſidum qui ex vi illa extranea orietur: & contra. Ut ſi vis qua corpus revolvitur in Ellipſi ſit ut $\frac{1}{A^2}$, & vis extranea ablata ut cA, adeoq; vis reliqua ut $\frac{A - cA^4}{A^3}$; erit (in Exemplis tertiis) A æqualis 1 & n æqualis 4, adeoq; angulus revolutionis inter Apſides æqualis angulo graduum $180\sqrt{\frac{1-c}{1-4c}}$. Ponatur vim illam extraneam eſſe 357,45 vicibus minorem quam vis altera qua corpus revolvitur in Ellipſi, id eſt c eſſe $\frac{100}{35745}$, & $180\sqrt{\frac{1-c}{1-4c}}$ evadet $180\sqrt{\frac{35645}{35345}}$ ſeu 180,7602, id eſt 180*gr.* 45*m.* 37*ſ.* Igitur corpus de Apſide ſumma diſcedens, motu angulari 180*gr.* 45*m.* 37*ſ.* perveniet ad Apſidem imam, & hoc motu duplicato ad Apſidem ſummam redibit: adeoq; Apſis ſumma ſingulis revolutionibus progrediendo conficiet 1*gr.* 31*m.* 14*ſ.*

Hactenus de motu corporum in orbibus quorum plana per centrum virium tranſeunt. Supereſt ut motus etiam determinemus in planis excentricis. Nam Scriptores qui motum gravium tractant, conſiderare ſolent aſcenſus & deſcenſus ponderum, tam obliquos in planis quibuſcunq; datis, quam perpendiculares: & pari jure motus corporum viribus quibuſcunq; centra petentium, & planis excentricis innitentium hic conſiderandus venit. Plana autem ſupponimus eſſe politiſſima & abſolute lubrica ne corpora retardent. Quinimo in his demonſtrationibus, vice planorum quibus corpora incumbunt quaſq; tangunt incumbendo, uſurpamus plana his parallela, in quibus centra corporum moventur & orbitas movendo deſcribunt. Et eadem lege motus corporum in ſuperficiebus curvis peractos ſubinde determinamus.

SEC.

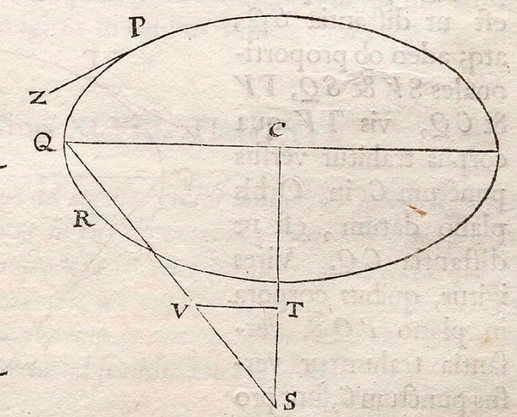
SECT. X.

De Motu Corporum in Superficiebus datis, deq; Funipendulorum Motu reciproco.

Prop. XLVI. Prob. XXXII.

Poſita cujuſcunq; generis vi centripeta, datoq; tum virium centro tum plano quocunq; in quo corpus revolvitur, & conceſſis Figurarum curvilinearum quadraturis: requiritur motus corporis de loco dato data cum velocitate ſecundum Rectam in Plano illo datam egreſſi.

Sit S centrum virium, SC diſtantia minima centri hujus a plano dato, P corpus de loco P ſecundum rectam PZ egrediens, Q corpus idem in Trajectoria ſua revolvens, & PQR Trajectoria illa in plano dato deſcripta, quam invenire oportet. Jungantur CQ QS, & ſi in QS capiatur SV proportionalis vi centripetæ qua corpus trahitur verſus centrum S, & agatur VT quæ ſit parallela CQ & occurrat SC in T: Vis SV reſolvetur (per Legum Corol. 2.) in vires ST, TV; quarum ST trahendo corpus ſecundum lineam plano perpendicularem, nil mutat motum ejus in hoc plano. Vis autem altera TV, agendo ſecundum poſitionem plani, trahit corpus directe verſus punctum C in plano



V da-

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